

# LIZARD WIZARD



## Conversion Kit Instruction Manual



INTERNATIONAL INDUSTRIES, INCORPORATED

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- PARTS LIST -

| <u>Item #</u> | <u>Qty.</u> | <u>Description</u>                                      |
|---------------|-------------|---------------------------------------------------------|
| 1             | 1           | Auxiliary Logic Board Module                            |
| 2             | 4           | Lizard Wizard Program Roms                              |
| 3             | 2           | Lizard Wizard Character Roms                            |
| 4             | 2           | Lizard Wizard Bi-Polar Color Proms                      |
| 5             | 1           | Marquee Overlay                                         |
| 6             | 1           | Control Panel Overlay                                   |
| 7             | 2           | Side Panel Graphics                                     |
| 8             | 2           | 8 Way Joystick                                          |
| 9             | 2           | Button/Switch Assemblies                                |
| 10            | 6           | Joystick/Button Hookup Wires                            |
| 11            | 1           | 8" Tie Wrap                                             |
| 12            | 1           | Instruction Manual                                      |
| 13            | 2           | Phillips Wood Screws to Mount<br>Auxiliary Module       |
| 14*           | 1           | Wooden Control Panel, Unassembled,<br>Predrilled Holes. |

\* Optional

# LIZARD WIZARD

## CONVERSION PROCEDURE

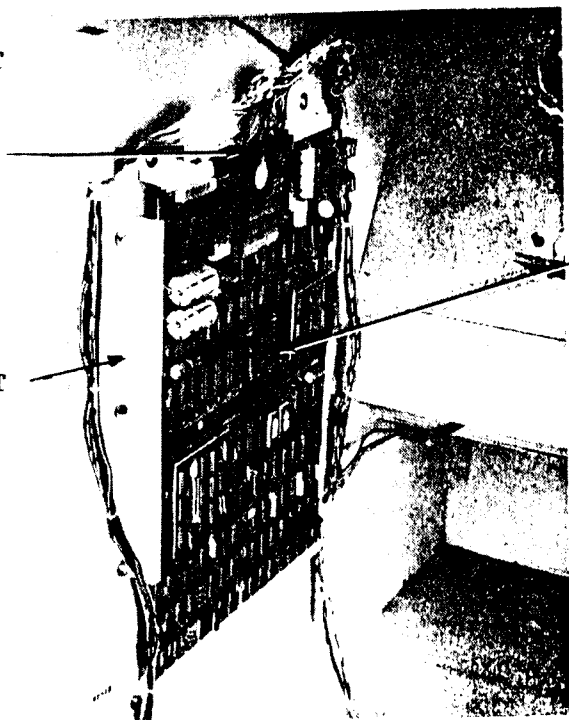
The following steps should be followed to convert your Pac Mac/ Ms. Pac Man game to Lizard Wizard.

### Main Logic P.C.B. Removal:

- 1.) Disconnect the Main Game Logic Board from all its cabling.
- 2.) Remove the P.C.B. clamps and slide the Main Game Logic Board out of the cabinet.

DISCONNECT  
CABLING

REMOVE  
CLAMP TO  
P.C.B. OUT

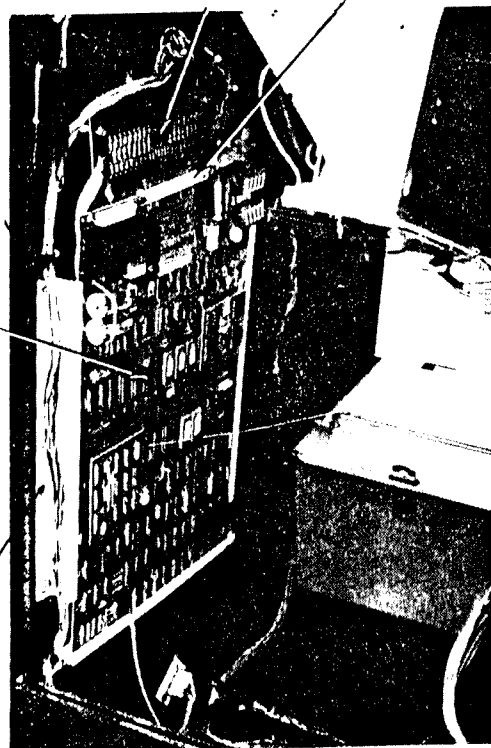


UPRIGHT

DISCONNECT  
CABLING

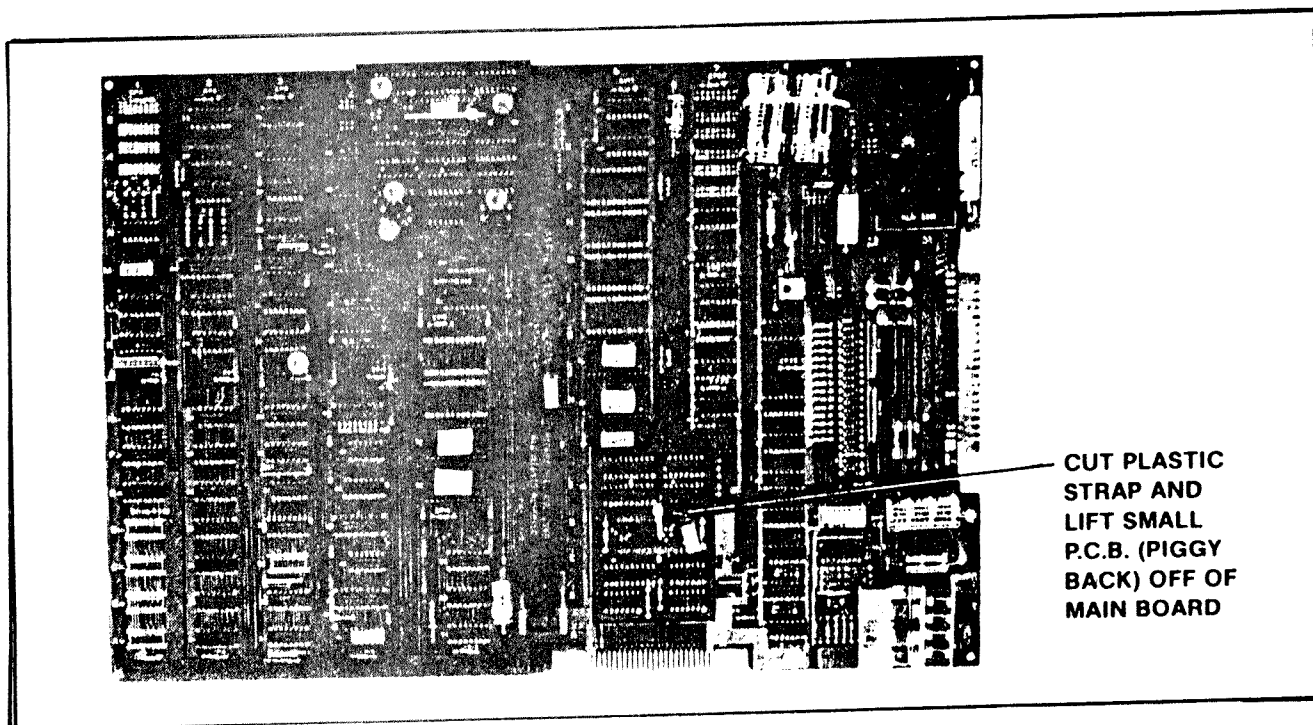
MAIN LOGIC  
P.C.B.

REMOVE CLAMP  
TO SLIDE  
P.C.B. OUT

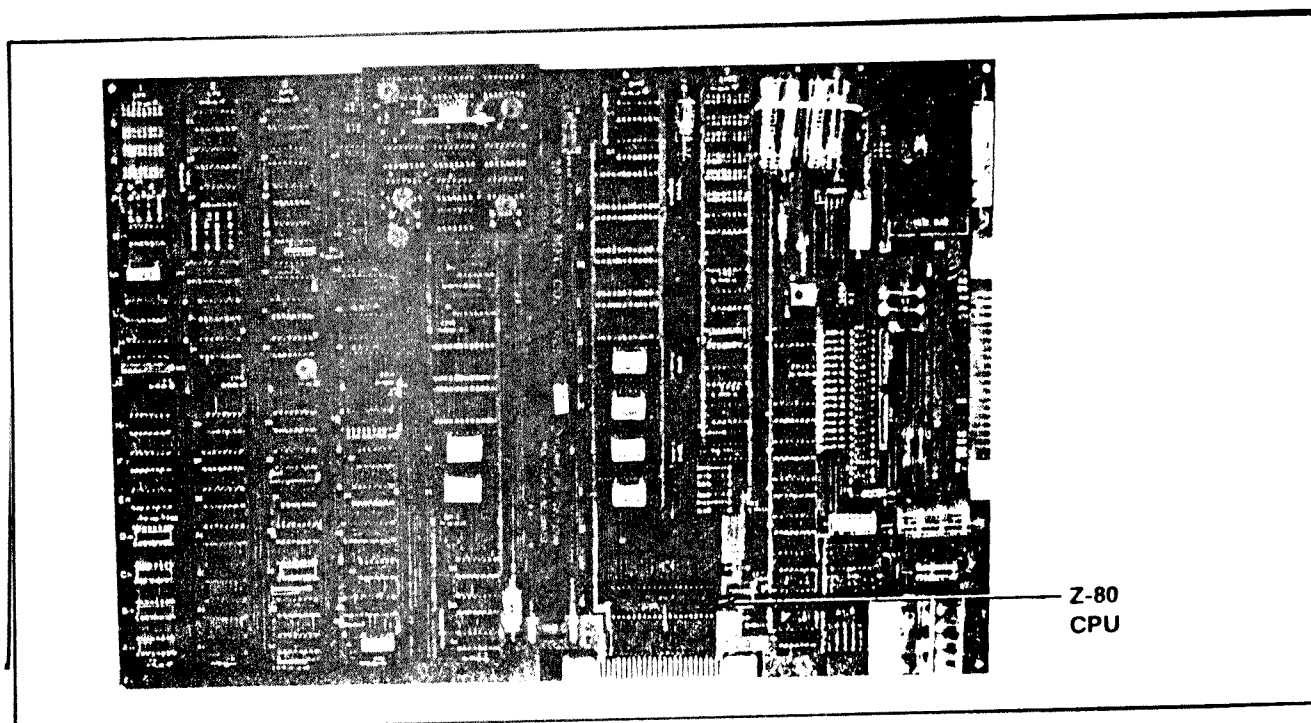


MINI

- 3.) Cut the plastic securing strap and remove the "PIGGY-BACK" module. **IF YOUR GAME IS EQUIPPED WITH ONE.** If it **IS NOT** equipped with one, simply proceed to Step 4 below.

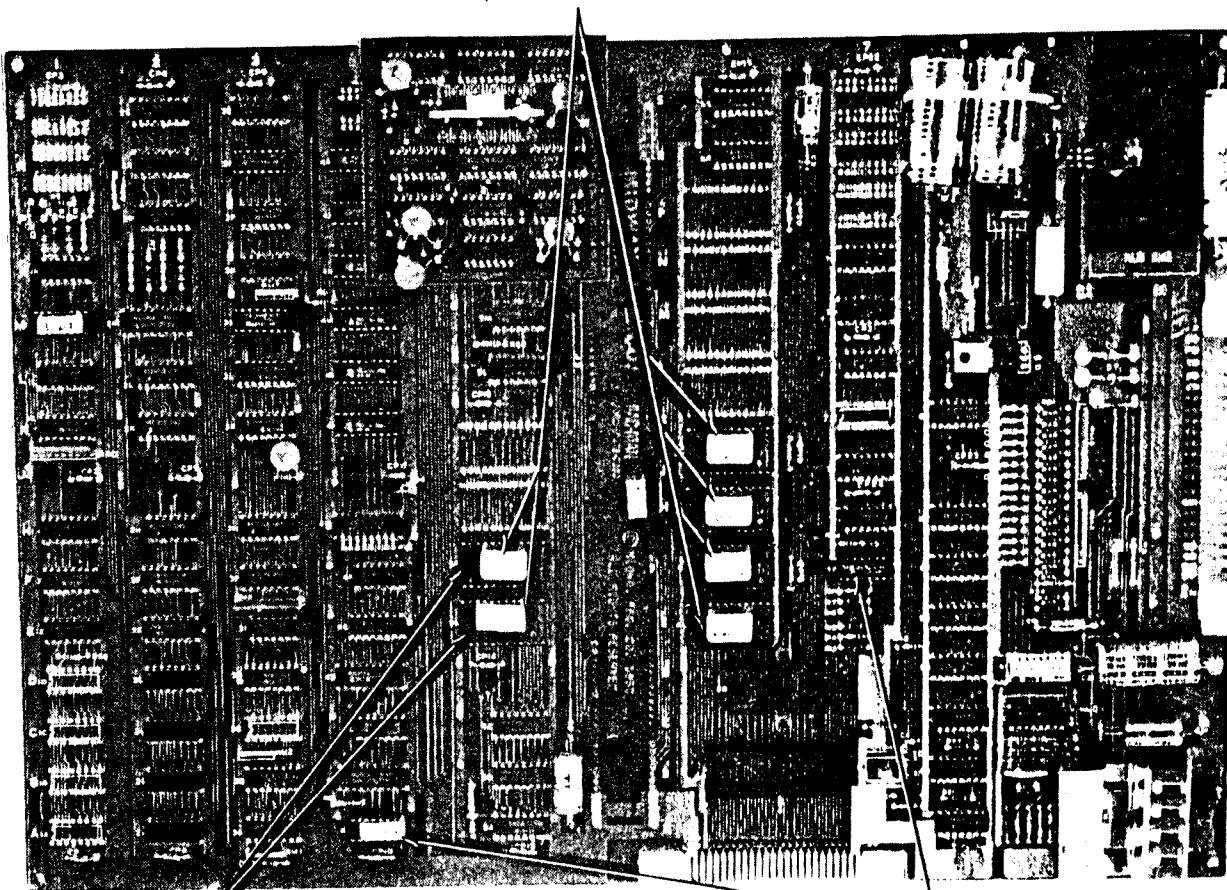


- 4.) Remove the Z-80 CPU from the Main Game Logic Board. **BE CAREFUL NOT TO BEND ITS PINS!!** Return this CPU to your stock. It may be used as a spare part.



- 5.) Remove the six **EPROMS** and 2 **PROMS** located as shown below and set them aside. **BE CAREFULL NOT TO BEND THEIR PINS!!**. Replace the removed **EPROMS** and **PROMS** with the ones supplied in your conversion kit.

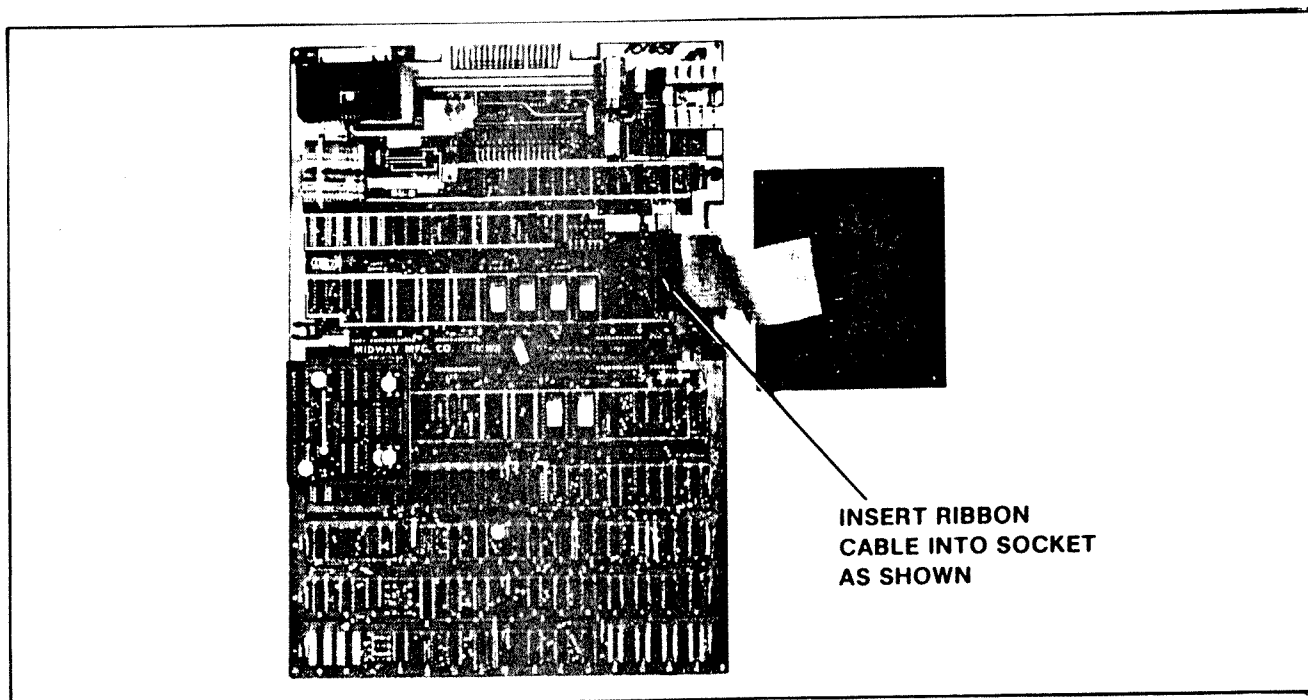
REMOVE (6) EPROMS  
AND REINSERT NEW  
EPROMS SUPPLIED  
WITH KIT.  
(LOCATIONS 5E, 5F, 6E, 6F, 6H & 6J)



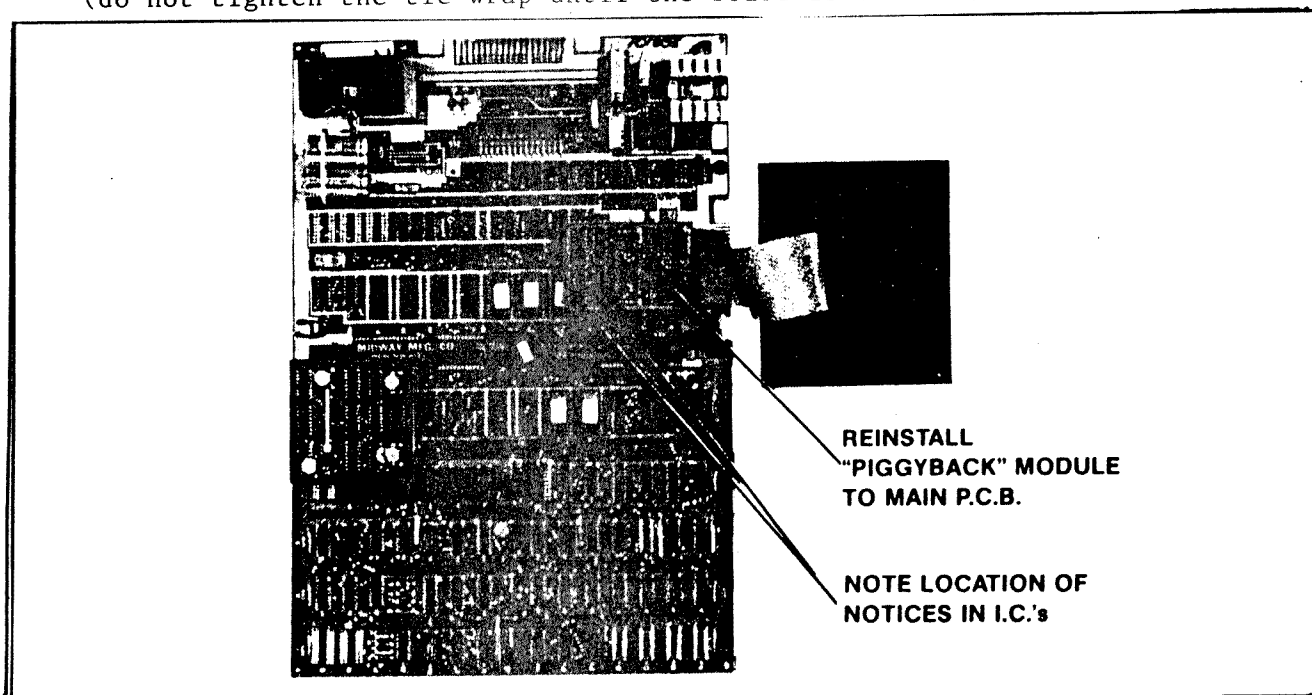
**IMPORTANT!**  
NOTE LOCATION  
OF NOTCH ON  
ALL I.C.s REMOVED  
BEFORE INSERTING

REMOVE (2) PROMS  
AND REINSERT NEW  
PROMS SUPPLIED  
WITH KIT.  
(LOCATIONS 4A & 7F)

- 6.) Plug the ribbon extension cable for the Auxiliary Game Logic Board into the empty socket on the Main Game Logic Board that was left when you removed the Z-80 CPU from it in Step 4. Connect the Black wire from the module to ground.



- 7.) If your game is equipped with a "PIGGY-BACK" module that you removed in step 3 reinstall it at this time. If it was not equipped with one, simply proceed to Step 8. Reinstall 8" tie wrap to secure the "PIGGY-BACK" module (do not tighten the tie wrap until the board is tested.)



8. Reinstall the Main Game Logic Board and the Auxillary Game Logic Board (now attached to it by the ribbon cable) back into the game cabinet. Auxiliary Board should be attached to cabinet with wood screws provided.

#### INSTRUCTIONS FOR USING EXISTING MIDWAY CONTROL PANEL

- 1.) Disconnect control panel harness from main harness and remove control panel.
- 2.) Unsolder wires to Joystick (these will be used on the new first player joystick) and remove joystick.
- 3.) Remove the Pac Man / Ms. Pac Man overlay and apply Lizard Wizard control panel overlay.
- 4.) Locate and drill new joysticks & lazer button holes. See Drawing "C" (A helpful tool in cutting the holes in the metal control panel is a Greenlee Tool Company punch type 730, 1 5/16").
- 5.) Install kit buttons & Joysticks as shown in drawing "B".

**Note:** Joysticks require eight (8) carriage bolts with nuts & star washers. Size- 10-24 x 1".

- 6.) Solder the wires from the Midway control panel harness to the same connections on the first player joysticks.
- 7.) Connect the ground (common) side of all the switches with the black wire provided to the Red wire (common) from the original harness.
- 8.) Solder the six (6) pre-cut & pre-terminated wires provided to the appropriate switch.

| <u>Wire Color</u>  | <u>Function</u>  | <u>Insert in connector #</u> |
|--------------------|------------------|------------------------------|
| Green /Black/White | 2nd Player Up    | 12                           |
| Yellow             | " " Down         | V                            |
| Violet/Black/White | " " Left         | P                            |
| Blue/Black/White   | " " Right        | 13                           |
| Orange/Blue/White  | " " Lazer        | R                            |
| Orange/White       | 1st Player Lazer | Test Switch                  |

- 9.) The wires that terminate in Amp Edge card terminals plug directly into the Midway connector as listed above. The wire without a terminal (Orange/White) must be soldered to what was the test switch input.
  - A.) Remove the White/Yellow wire from the test switch located just inside & to the right of the coin door.
  - B.) Solder the Orange/White wire from 1st player lazer to the White/Yellow wire. Insulate your solder splice.

## **Instructions for Optional Control Panel**

A wooden control panel is available to ease your conversion of **Pac Mac/ Ms. Pac Man** to **Lizard Wizard**.

The new control panel utilizes the following items from your original Midway panel:

- 1.) Harness
- 2.) Mounting Pins (2)
- 3.) Latch Clamp Catch (2)
- 4.)  $\frac{1}{4}$ " hex Screw (8)
- 5.) Start Buttons, Pal Nuts, Switches & Mounting Bracket (2)

### **Assembly:**

- 1.) Properly position control panel overlay onto new dash and affix via pressure sensitive backing.
- 2.) Cut Joystick Mounting holes thru overlay with sharp knife or razor knife.
- 3.) Install mounting pins and latches in the precise position as on your original Midway control Panel. See drawing "A".
- 4.) Unsolder wires from Midway Joystick.
- 5.) Remove Midway start buttons from original panel with harness and install in the new panel. Solder the wires from the Midway harness to the same connection on the 1st player Joystick. (See wiring diagram)
- 6.) Install kit buttons and joysticks as shown in drawing "B".
- 7.) Connect the ground (common) side of all the switches with the black wire provided to the red wire (common) from the original harness.
- 8.) Solder the six (6) pre-cut & pre-terminated wires provided to the appropriate switch. The wires that terminate in **AMP EDGE CARD TERMINALS** plug directly into the Midway connector as listed below.

| <u>WIRE COLOR</u>  | <u>FUNCTIONS</u> | <u>INSERT IN<br/>CONNECTOR #</u> |
|--------------------|------------------|----------------------------------|
| Green/Black/White  | 2nd player Up    | 12                               |
| Yellow             | 2nd Player Down  | V                                |
| Violet/Black/White | 2nd Player Left  | P                                |
| Blue/Black/White   | 2nd Player Right | 13                               |
| Orange/Blue/White  | 2nd Player Lazer | R                                |

9.) The **1st Player Lazer** uses the included **Orange/White** wire and must be tied to what was the **Test** switch input.

A.) Remove the **White/Yellow** wire from the test switch located just inside and to the right of the coin door.

B.) Solder the **Orange/White** wire from **1st Player Lazer** to this **White/Yellow** wire from the test switch. Insulate your solder splice.

### MARQUEE

#### **Preparation:**

- 1.) The Marquee artwork should be affixed to a piece of clear plexiglass measuring 23" x 9 1/16" x 1/8".
- 2.) A second piece of plexiglass measuring 23" x 9 1/16" x 1/16" should be placed on top of the other plexiglass to "sandwich" the artwork between them.

### INSTALLATION

- 1.) Turn the power off
- 2.) Remove the screws from the top marquee bracket.
- 3.) Remove the Midway marquee
- 4.) Install Lizard Wizard marquee and replace top bracket and screws.

# LIZARD WIZARD DIP SWITCH TABLE

## METHOD OF PLAY

| SW #1 | SW #2 |        |          |
|-------|-------|--------|----------|
| OFF   | ON    | 2 COIN | 1 PLAY   |
| ON    | OFF   | 1 COIN | 2 PLAY   |
| OFF   | OFF   | 1 COIN | 1 PLAY   |
| ON    | ON    |        | FREEPLAY |

## NUMBER OF SPACEMEN PER GAME

| SW. #3 | SW. #4 |            |
|--------|--------|------------|
| ON     | ON     | 5 SPACEMEN |
| OFF    | ON     | 4 SPACEMEN |
| ON     | OFF    | 3 SPACEMEN |
| OFF    | OFF    | 2 SPACEMEN |

## BONUS SPACEMAN

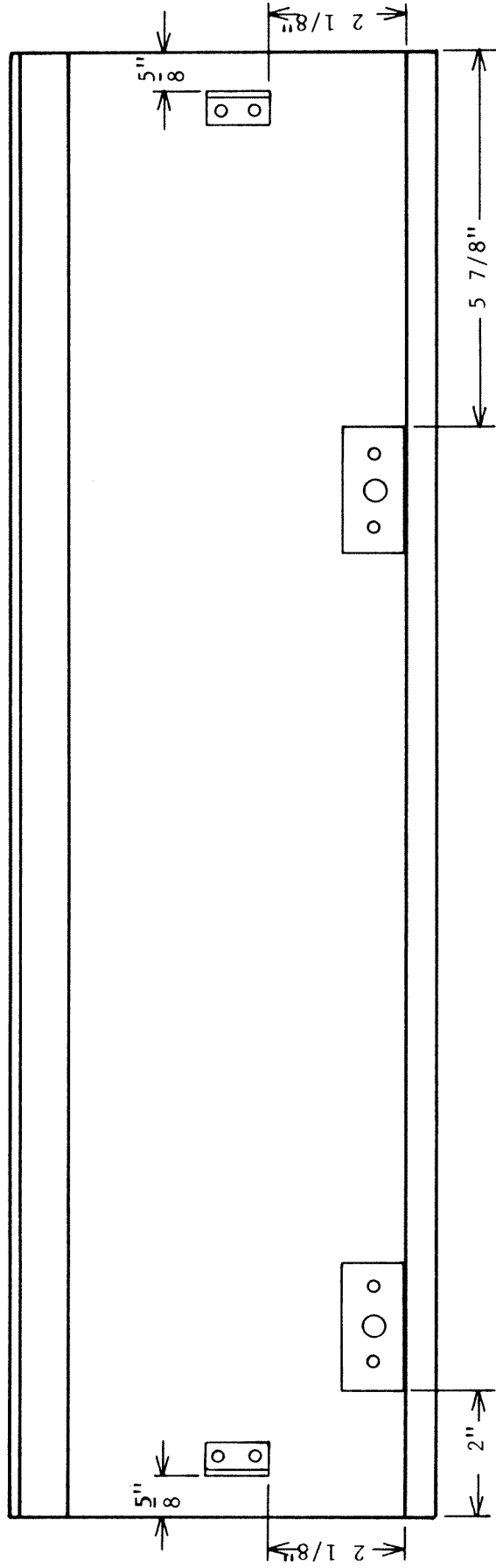
| SW. #5 | SW. #6 |                   |               |
|--------|--------|-------------------|---------------|
| ON     | ON     | BONUS SPACEMEN AT | ----- 150,000 |
| OFF    | ON     | BONUS SPACEMEN AT | ----- 125,000 |
| ON     | OFF    | BONUS SPACEMEN AT | ----- 100,000 |
| OFF    | OFF    | BONUS SPACEMEN AT | ----- 75,000  |

| SW. #7 | SW. #8 |                |
|--------|--------|----------------|
| OFF    | OFF    | PLAY MODE      |
| ON     | OFF    | ROM & RAM TEST |
| OFF    | ON     | LOCKS PICTURE  |

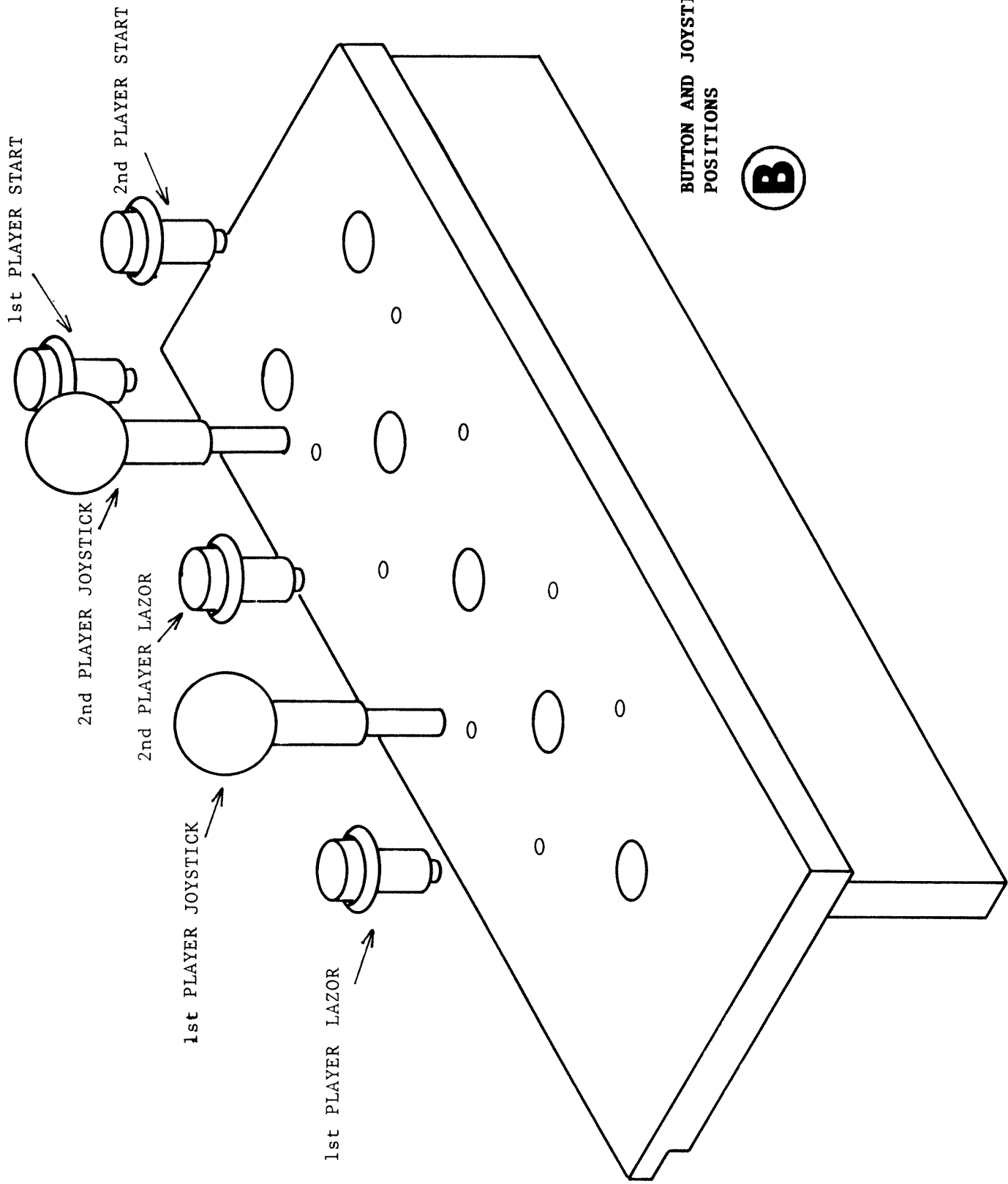
## **Lizard Wizard Conversion Kit**

Miscellaneous Information you may want to know:

- 1.) The front glass measures 23" x 21 1/8" x 3/16". If you replace this with plexiglass, use either clear or Light Smoke #2412.
- 2.) The Marquee glass measures 23" x 9 1/16" x 3/16".
- 3.) The cabinet color is Sun Yellow #30912
- 4.) The carriage bolts used to mount the joysticks are #10-24 x 1".
- 5.) If you make your own control panel, the holes are as follows:
  - \* Joystick Center = 1 3/16"
  - \* Joystick Mounting = 3/16"
  - \* Button Mounting = 1 3/16"
- 6.) An attractive monitor bezel is available from Wico Corp., Chicago, Ill. 60678  
  
    **as:** Universal Bezel Display #26-3157-00 @ \$11.95
- 7.) A helpful tool in cutting the holes in the Midway metal control panel is a Greenlee Tool Company punch type 730, 1 3/16".
- 8.) A monitor bezel is also available from J-S Sales Company, Mt. Vernon, New York, 1-800-431-2944, catalog # 8063.

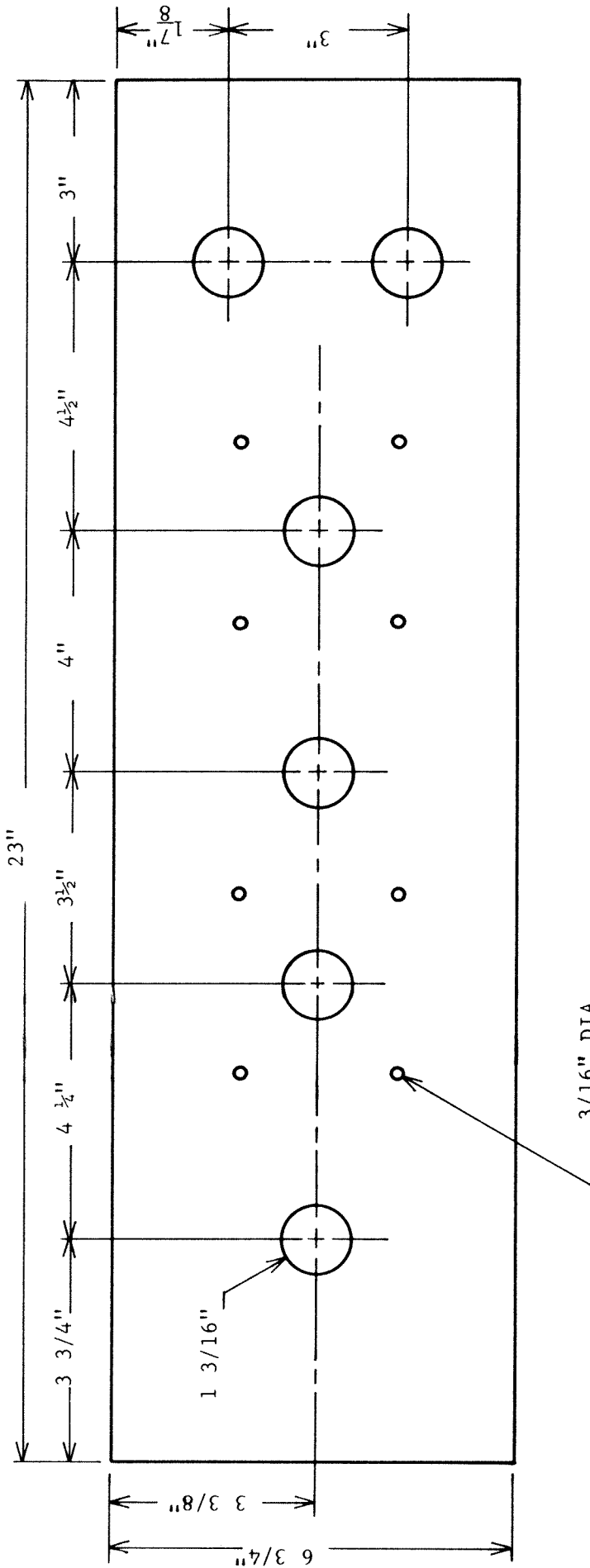


MOUNTING PIN AND  
LATCH POSITIONS



BUTTON AND JOYSTICK  
POSITIONS





**NOTE:** AFTER JOYSTICK HOLES  
HAVE BEEN DRILLED, ALIGN  
JOYSTICK SWITCH ASSEMBLY  
WITH HOLE AND MARK MOUNTING  
HOLES



**BUTTON AND JOYSTICK  
HOLE LOCATIONS**

YELLOW/RED

GREEN/BLACK/WHITE

BLUE/WHITE

WHITE/RED

WHITE/YELLOW

ORANGE/WHITE

1st PLAYER LAZOR/TEST  
SWITCH SPlice

1st PLAYER  
START

2nd PLAYER  
START

RIGHT

2nd PLAYER  
JOYSTICK

DOWN

LEFT

2nd PLAYER  
LAZOR

RIGHT

1st PLAYER  
JOYSTICK

DOWN

LEFT

1st PLAYER  
LAZOR

|   |    |
|---|----|
| A | 1  |
| B | 2  |
| C | 3  |
| D | 4  |
| E | 5  |
| F | 6  |
| H | 7  |
| J | 8  |
| K | 9  |
| L | 10 |
| M | 11 |
| N | 12 |
| P | 13 |
| R | 14 |
| S | 15 |
| T | 16 |
| U | 17 |
| V | 18 |
| W | 19 |
| X | 20 |
| Y | 21 |
| Z | 22 |

VIOLET/BLK/WHITE

ORANGE/BLUE/WHITE

YELLOW

COMMON

BROWN/WHITE

BLUE/BLACK/WHITE

CONTROL PANEL WIRING DIAGRAM

# SUNN INTERNATIONAL INDUSTRIES, INC.

## LIMITED WARRANTY

Company warrants that the equipment will be free from defects in material and workmanship and meet product specifications for a period of 60 days from the date that purchaser accepts delivery of the equipment.

### THIS WARRANTY DOES NOT COVER

1. Misuse or damage by Purchaser or a third party. Purchaser shall promptly report such defects to Company upon discovery. Company, at its option, shall either repair or replace such defective part or the entire item.
2. Damage caused by neglect, abuse, improper operation, improper repairs, accidents or damage caused by fire, flood, acts of God or other casualties beyond the control of Sunn International Industries Inc. (SUNN).
3. Game components or parts thereof which have had the identifying names and/or numbers removed, altered, defaced or rendered illegible.
4. Components or parts not manufactured, installed, sold or authorized for use by SUNN, or modifications to game not authorized by SUNN. Use of such components, parts or modifications voids this Warranty in its entirety.
5. In transit damage claims must be filed with the carrier by the Purchaser.

This Warranty is in lieu of all other warranties, guarantees or agreements whether expressed or implied. No other person, agent, authorized service center or company is authorized to change, modify or extend its terms in any manner whatsoever.

SERIAL NO. \_\_\_\_\_

MODEL NO. \_\_\_\_\_

DATE SHIPPED \_\_\_\_\_

TO: SUNN. Fill out this stub completely and mail within ten (10) days. Please type or print. Detach stub from warranty and return.

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

DATE SHIPPED: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

SERIAL NO. \_\_\_\_\_ MODEL NO. \_\_\_\_\_